Invest in Canada DIGITAL MEDIA GAMES





CANADA'S DIGITAL MEDIA—GAMES SECTOR

INVESTMENT INTO CANADA

- » California-based Activision expanded its Beenox facility in Quebec between 2007 and 2009, adding several hundred jobs and a training facility.
- » Longtail Studios of New York continued expanding in Canada by opening a new studio in Charlottetown, Prince Edward Island, in 2008.
- » Ubisoft Entertainment SA of France expanded its production facility, creating approximately 1,000 jobs in Montréal, Quebec, in 2007.
- » U.K.-based Eidos Interactive Ltd. established a new facility in Montréal, Quebec, creating 350 jobs in 2007.

MAJOR PUBLISHERS IN CANADA

Activision Blizzard

Electronic Arts

Eidos Interactive

Koei

THQ

Ubisoft Entertainment

LEADING CANADIAN COMPANIES

Artificial Mind & Movement

Artifact Software

Beenox

Bioware

Digital Extremes

HB Studio

New Horizon Interactive

Other Ocean Interactive

Project Whitecard

Radical Entertainment

Relic Entertainment

Silicon Knights

Iron Man developed by Artificial Mind & Movement (Montréal, Canada) Canada is home to some of the best-known brands in the video games industry. Companies like Activision, Disney, Electronic Arts (EA), Eidos, Koei, Microsoft Games, THQ and Ubisoft have set up shop in Canada for good reasons.

Canada has over 500 companies across the value chain in this sector, from hardware, development tools and enablers, to support services, developers and publishers. In 2008, approximately 250 game development companies employed 14,000 people, generating \$2.2 billion¹ in revenues².

Digital media companies choose Canada for its quality of life, production credits and creative professionals. They recruit well trained staff from renowned Canadian schools, such as: the Centre for Digital Media, Simon Fraser University; the University of British Columbia; Sheridan, Seneca and Centennial Colleges; Matane Cégep, Université de Sherbrooke; the National Animation Design Centre; and the University of New Brunswick.

Key Capabilities

Canadian-based developers and publishers have created award-winning games for all platforms.

Console games: Category-leading console games developed in Canada include Too Human by Silicon Knights, Unreal Tournament by Digital Extremes, Crash of the Titans by Radical Entertainment (Activision Blizzard), Neverwinter Nights by Bioware (EA), Super Mario Strikers by Next Level Games and Bee Movie by Beenox (Activision).

Online games: Popular online games created in Canada include Warhammer by Relic (THQ), Club Penguin by New Horizon Interactive (Disney Interactive), NHL 09 SPORTSTM by HB Studios, Need for Speed by EA and Assassin's Creed by Ubisoft.

Mobile games: Canada is home to a number of mobile developers that have produced titles such as Emily Yeung by Marblemedia, Artificial Mind & Movement's Spiderman: Friend or Foe and Super Monkey Ball by Other Ocean Interactive.

Casual games: Canada is an important player in the rapidly growing casual games market that includes Sally's Salon from Games Café, and the Webkinz toys and website from Ganz.

Canada is also developing significant expertise in serious games, which use game-like technology for training and simulation. CMLabs and CFB Gagetown undertake defence simulations, while Coole Immersive, Artifact Software, and Xpan Interactive specialize in industrial training. Spongelab Interactive and Project Whitecard are working on math and science games.

Other players in the value chain include Canadian-based development tool makers such as Softimage (Autodesk), XYZ RGB; motion effects specialists like D-BOX, GestureTek Technologies and Mgestyk Technologies; and multiplayer middleware developers like Quazal Technologies. Hardware made in Canada includes ATI graphic chips (AMD), joysticks (Quanser), 3D imaging systems (Arius3D). Supporting tools and services include animation (Side Effects, Toon Boom), visuals (Rainmaker), testing (Bug-Tracker, Enzyme), localization (Babel) and platform portability (TransGaming).

KEY CANADIAN CLUSTERS

British Columbia

With over 1,000 companies employing approximately 15,000 people and producing revenues of over \$2 billion a year, this region's digital media and games sector is among the world's top performing clusters. Vancouver is a hub of cutting-edge video game development, attracting leading companies such as Electronic Arts, Radical Entertainment (now an Activision Blizzard company) and Relic Entertainment (now part of THQ Inc).

Manitoba .

Winnipeg is a growing digital media cluster, with an estimated 125 companies focused on interactive digital media and games. Over the last three years, revenues in the Manitoba video game industry have grown by 850 percent. This is in part due to incentives like the Manitoba Interactive Digital Media Tax Credit, which provides a 40 percent refundable tax credit on allowable expenses for the production of digital media projects, and to financing available through a targeted industry fund. The industry is also supported by leading-edge education programs at the University of Manitoba and Red River College, which develop and train talent for all areas of digital media, and by the presence of leading business incubators such as Fortune Cat Games Studio and the Eureka Project at the University of Manitoba's Smartpark Research and Technology Park.

Alberta

Edmonton is home to many leading developers in the games industry, including BioWare (now part of Electronic Arts), a world-renowned electronic entertainment company, and XGen, a developer and publisher of flash games. Alberta companies and research institutes also have proven expertise in developing serious games.

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Prince Edward Island (PEI)

Charlottetown is an emerging game development location thanks in large part to the government's Gameplan sector strategy. In just three years, PEI's previously non-existent game industry has grown to include such companies as Other Ocean Interactive, Bight Games, Telos Productions and Longtail Studios. PEI offers an attractive labour rebate program for developers and has recently established new post-secondary training programs to meet future demand for skilled workers. PEI is also home to Game Force, an after-school game training initiative for high school students, and GameGarage, a summer incubator program for recent computer science graduates.

Nova Scotia

Within the games industry, Halifax is home to leading companies such as HB Studios, which specializes in creating spectacular and challenging computer and console video games, and Huminah Huminah Interactive, which specializes in flash and 3D casual games. Nova Scotia offers a major investment incentive in its Digital Media Tax Credit. This is a refundable tax credit for costs directly related to the development of interactive digital media products.

Quebec

Montréal is rapidly becoming one of the most attractive cities in the world for the establishment and expansion of companies in the game development industry, which has grown over 400 percent in the past five years. The industry employs over 5,000 people in trailblazing companies such as Ubisoft, Eidos Interactive, Electronic Arts and Activision. Successful creative studios such as Artificial Mind & Movement and Sarbakan have also made this province their home. The Government of Quebec's very competitive refundable tax credit program of up to 37.5 percent of allowable workforce expenses for the production of multimedia titles gives companies in this sector reliably low operating costs and financial incentives adjusted to their needs.

Ontario

HALIFAX

TORONTO

Ontario's digital media industry generates revenues in excess of \$1 billion annually, attracting investments from global players such as Capcom and Koei. Offering more than 124 digital games educational programs through its world class institutions, Ontario is recognized worldwide for its artists, designers, animators and programmers. Furthermore, Ontario's R&D tax credits and digital media incentives can cut costs by more than 60 percent.



INVESTMENT LOCATION BENCHMARKING

METHODOLOGY

This benchmarking study assesses the competitiveness of a number of Canadian clusters against competing international business locations. Based on an investor's perspective, the research and analysis uses a representative investment project prototype (an operation that develops games and multimedia—see profile on page 5) to assess criteria that corporate decision makers typically examine when evaluating location alternatives for foreign investment.

This international location benchmarking exercise was conducted by IBM-Plant Location International (IBM-PLI), a renowned global location consultancy. IBM-PLI performed objective research to assess the comparative cost and quality of doing business in various locations, simulating the approach used by investors when screening candidates for corporate investment projects. The benchmarking study examined 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

To assess the quality of a location's operating business environment, data were collected from a variety of sources for the different subfactors in each of the categories featured in the operating environment table (page 5). Data for the qualitative assessment were translated into comparable scorings (zero to 10) for each category and subfactor using a weighted scoreboard approach. Weights were assigned to each location category and subfactor to demonstrate their relative importance in the location selection process. These weights are specific to each industry subsector and are based on IBM-PLI's experience in helping investors make strategic decisions when choosing locations.

A high-level financial analysis was also completed to take into account major location sensitive operating costs for each representative project profile. Operating cost projections have been calculated and discounted over a 10-year period, incorporating anticipated inflation rates, to determine their net present value.



benchmarking the comparative cost and quality of doing business in global locations



INVESTMENT LOCATION BENCHMARKING

REPRESENTATIVE PROJECT PROFILE



GENERAL DESCRIPTION OF OPERATIONS

Development of games and multimedia

KEY PROJECT DRIVERS

- » Presence of experienced industry specific staff as well as dedicated graduate level staff
- » Access to research and technology (universities, incubators, R&D funding, etc.)

OPERATING COST ANALYSIS PROJECT REQUIREMENTS FOR FINANCIAL MODELLING

LABOUR

Programmers: 10
Animators: 6
Producers: 2
Artists: 2
Designers: 2
Team Leaders: 3
Testers: 2
Level Builders: 1

(HEADCOUNT = 28)

PROPERTY

Building: 25,000 sq ft

OPERATING ENVIRONMENT

GENERAL BUSINESS ENVIRONMENT » 10%*

- » Compliance with protection of privacy regulations, information security, IP rights;
- » Availability of financial support & incentives; » Quality of support from local government & development agencies; » Business permitting procedures;
- » Economic and financial stability; » Political stability

LOCAL POTENTIAL TO RECRUIT SKILLED STAFF » 30%*

- » Presence of experienced gaming employees; » Presence of student population;
- » Overall tightness in the labour market (unemployment);
- » Overall size of labour pool

PRESENCE OF INDUSTRY/CLUSTER » 20%*

» Presence of industry base; » Importance of R&D

FLEXIBILITY OF LABOUR & REGULATIONS » 5%*

- » Hiring & firing flexibility; » Industrial relations/attitude of unions;
- » Working time regulations; » Work permits

INFRASTRUCTURE & COMMUNICATIONS » 10%*

- » Air access; » Quality & reliability of IT & telecommunications;
- » Reliability of power supply; » Highway network & congestion; » Public transport

REAL ESTATE » 10%*

» Availability of office space

LIVING ENVIRONMENT » 15%*

- » Attractiveness for young international recruits;
- » Attractiveness for expatriates; » Cost of living



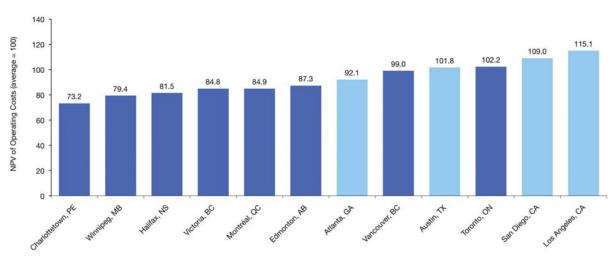
CANADA'S VALUE PROPOSITION

Canada is home to thriving digital media clusters with large pools of employees who possess the specialized skills needed for designing games and related products.

Canada's high quality of life and affordable cost of living position it as a top location for attracting the creative talent essential to the success of game development firms.

COST ASSESSMENT*





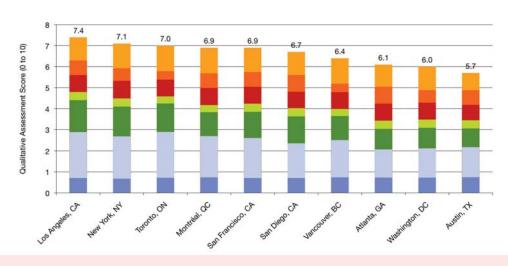
Favourable operating costs

Canadian locations such as Charlottetown, Winnipeg, Halifax, Victoria, Montréal and Edmonton offer investors excellent cost competitive options in locating their game development operations within North America. Vancouver and Toronto, while more expensive, are still considerably more cost-effective than most U.S. and European development hotspots.

QUALITATIVE ASSESSMENT OF OPERATING ENVIRONMENT*



environment



Strong clusters with a wealth of resources

Canada's three largest games clusters, Toronto, Montréal and Vancouver, rank very highly on the qualitative dimension, with Toronto and Montréal competitively positioned in the top 5 in

North America. The availability of multimedia, movie industry and computer skills in all three markets lead to strong performance in terms of their potential to recruit skilled staff.

CANADA'S VALUE PROPOSITION



Presence of experienced games-related employees (highest-ranking cities)*



A skilled and motivated workforce

Game development firms require a combination of professionals trained in software design and media. This study used estimates of the number of these types of professionals available in the region.

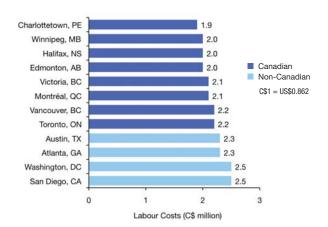
By investing in people and welcoming talent from around the world, Canada provides games companies with access to a productive and highly skilled workforce. Well-established hubs such as Montréal, Toronto and Vancouver, and growing clusters like Halifax, Charlottetown, Winnipeg and Victoria, offer investors a sizeable pool of experienced employees already working in the games industry.

Advantageous labour costs

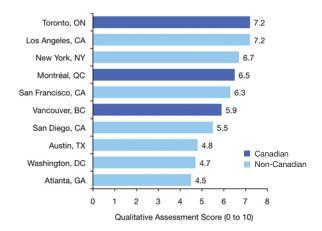
A calculation of the estimated annual labour costs for a typical video game company demonstrates the significant cost-saving potential of Canadian locations over prominent U.S. counterparts. The assessment takes into account programmers and animators who make up a large proportion of the labour requirement for game development firms.

An important component of Canada's labour cost advantage relative to the United States comes from the lower costs of providing employee benefits. Canada's national healthcare system implies that most medical insurance costs are publicly funded rather than paid by the employer, resulting in significant savings.

Estimated annual labour costs (highest-ranking cities)*



Local potential to recruit staff (highest-ranking cities)*



A deep labour pool

The overall size of the labour pool, number of game development employees such as programmers, film industry staff and video industry staff, the size of the student population and the tightness of the labour market are important considerations when assessing locations and the availability of workforce.

Canadian cities such as Toronto, Montréal and Vancouver, provide access to a large number of staff with skills suitable for the games industry. The presence of numerous computer science students ensures that Canada's three largest games clusters maintain a pool of qualified employees for potential investors.

CANADA'S VALUE PROPOSITION

Leading-edge games clusters

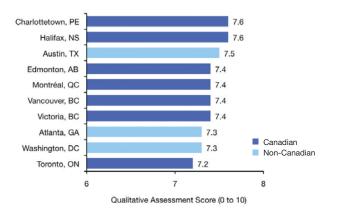
Clusters of games companies benefit from greater efficiency and increasing rates of improvement and innovation due to stronger research and development (R&D) networks and relationships with training institutions, buyers and suppliers.

Canada is home to a wide range of established hubs and emerging hotspots for game development that understand the importance of R&D and its impact on the overall creative operating environment for games companies. Canadian clusters have a concentration of key R&D resources that enable firms to push back the boundaries of video game design. The assessment of R&D takes into account expenditures, the presence of universities and research institutes with a focus on computer programming, the number of animation institutes, patents, and the World Knowledge Competitive Index.

Importance of R&D (highest-ranking cities)*



General business environment (highest-ranking cities)*



A conducive business environment

Economic stability, support from government and from local development agencies, R&D incentives, business permitting procedures, financial support available to business, privacy regulations, information security and intellectual property rights are all important considerations for businesses when investing or expanding their operations.

Canada as a whole, and all Canadian cities evaluated, offer a very strong overall business environment based on several international measures published by IMD, the Economist Intelligence Unit, the World Economic Forum and other institutions. For instance, Canada ranks second among G7 nations for patent and copyright protection. Charlottetown and Halifax rank particularly well because of their very supportive local development network.

Outstanding quality of life

Canada's highly rated living environment plays a significant part in the competition to attract international talent. With its natural beauty, comparatively low cost of living, quality of life and values, Canada is considered by many to be one of the best places in the world to live.

Attracting creative talent is a key element for companies in the games industry. From either a North American or global perspective, several Canadian cities offer an attractive living environment for both young graduates and expatriates. International measures such as the Mercer Cost of Living Survey, Sperling's Cities Ranked & Rated and Economist Intelligence Unit's quality of life index consistently place Canadian cities near the top of the rankings.

Living environment (highest-ranking cities)*



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